

INTRODUCTION

Page IV Photo – King Tutt Point mine, Plot 2, East Reservation Lease taken by Kenneth Hatfield, 1953, courtesy William Chenoweth.

PART 1

Page 3 1st Paragraph, Lines 5 and 6 not correct
 The AEC was the sole market for all uranium concentrate produced during the period 1947-1970 from the Navajo Nation. After 1970, milling companies sold their concentrate (yellowcake) to electric utilities. All the vanadium recovered from the ores was sold to the steel industry. Copper recovered from the Monument Valley ores was sold to copper smelters in Arizona.

Page 10 Northern AUM 2nd Paragraph – needs correcting
 Uranium was mined in the Northern AUM Region from 1948-1967 in the Carrizo Mountains and in the Sanostee area from 1952 to 1982. A small amount of radium was mined in 1920 (see additional comments, p. 7)

Page 20 I would suggest adding this info:

N-54	Saytah Canyon	AEC Plot 4
N-55	CBW-MC Mine	AEC Plot 5
N-56	Saytah Canyon	AEC Plot 4
N-42	North Martin	AEC Plot 2

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N-87	Eurida	AEC Plot 6
N-130	Syracuse	(RF&R) see note on page 8
N-129	Cottonwood Butte	Plot 8
N-133	North Star	Plot 12
N-134	Lone Star	Plot 9
N-136	White Cap	Plot 11
N-142	Oak Springs	Plot 10

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N-146	Franks Point	Plot 6
N-150	Williams Point	Plot 4
N-154	Lookout Point	Plot 3
N-155	Lookout Point Incline	Plot 3
N-158	Shadyside 2	Plot 3
N-159	Shadyside 1	Plot 3
N-164	Shadyside Incline	Plot 3
N-167	Nelson Point	Plot 3
N-176	King Tutt Point	Plot 2
N-180	Red Wash Point	Plot 1
N-190	Upper Red Wash	Isn't this the Nakai Chee Begay mine?

Page 79 1st Paragraph, Line 8
The Cove Transfer Station was used for all the Kerr-McKee mines in the Lukachukai Mtns, not just Mesa II.

Page 79 1st Paragraph, Line 10
Should be Frank No. 1 not Frankie

PART II – Section 1

Cover Page Lower Left photo – Kerr McGee's Mesa II, P-21 mine in the Lukachukai Mtns. Photo courtesy William Chenoweth, 1956.

Page 1-2 4th Paragraph
Vanadium was not "discovered" in the radium mine waste. The French found vanadium in the new uranium mineral they named Carnotite in 1899. The radium plants in the eastern US recovered some vanadium in their plants which they sold to the steel industry. Everyone in the radium industry knew about the vanadium. The USMB published a report (follows) in 1913.

Page 1-2 6th Paragraph
The \$10,000 bonus was for 20 tones of 20% or greater, non Carnotite ore. It was paid only once to a mine in Lisben Valley, UT (not Charlie Steen (?)). A company or individual, making a new discovery could get up to \$35,000 bonus on the first 10,000 lbs of U3O8 produced. Mining permittees and the Navajo Nation got a royalty on this bonus.

Page 1-4 Photo Figure 2.
Taken at VCA's Plot 2, West Reservation Lease Pit. Mineral was later identified as tyuyamunite, not Carnotite.

Page 1-10 1st Paragraph, Last Line
Add National Record Group 434-00-287

Page 1-10 4th Paragraph
The Monument Nos 1 & 2 mine had uranium recovered from their vanadium ore at the Monticello, UT mill. VCA shipped all their ore to the Monticello mill while Wade, Curran, and Co, and Curran Brothers and Wade shipped their ore to the Durango, CO mill. Both mills recovered uranium for the Manhattan Engineer District.

One of the first USBM publication on the
radium industry - 1913

Bulletin 70

Mineral Technology 2

DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

JOSEPH A. HOLMES, DIRECTOR

A PRELIMINARY REPORT

ON

URANIUM, RADIUM, AND VANADIUM

BY

RICHARD B. MOORE AND KARL L. KITHIL



WASHINGTON
GOVERNMENT PRINTING OFFICE
1913

PART II – Section 2

Page 2-4 1st Paragraph, 2nd Line

This gives the impression that the NURE program was all done by the AEC – not correct.

AEC 1973 – 1/18/75

ERDA 1/19/75 – 9/30/77

DOE 10/1/77 – 1984 Spent the most dollars

NURE ended in 1984 – see page 2-5, 1st Paragraph, last line

You are correct the aerial surveys ended in 1980.

PART II – Section 3

Page 3-56 2nd thru 4th references

U.S. Geological Survey not Geologic

Last reference Young and Malan – Add “open filed by the Department of Energy, 1981, as Preliminary Map No. 34.” (This was done at the request of the Navajo Nation, too late for the second uranium boom)

ADDITIONAL COMMENTS – SECOND REVIEW

Page 10 Northern AUM Region

Uranium was mined in the Lukachukai Mtns from 1950 through 1968.

Page 1-2 3rd Paragraph, Last Line

Add “in 1920, 20 tons of radium ore was mined from a lease in the northeastern Carrizo Mountains”

Page 1-3 5th Paragraph

The Navajo Nation and the permittee also received royalties on the vanadium in the ores as well as copper, and any AEC bonuses received for new discoveries.

Page 1-10 Thanks for the kind words in the 1st paragraph

Page 3-52 Chenoweth 1997 (S03310301) pages 167-168 (2 pages only)

Page 13 Not all references mentioned in the text are listed in pages 92-93 – example Malan, 1964 (S03010603) on page 13.

Page 1-12 2nd Paragraph, Table 4
Correct spelling is Nacheenbetah

Page 1-13 Lukachukai Map
The clear box (white) for no production, give the wrong impression for these mines. All produced some ore:
I ½ West
IV East
Frank No. 2
III West
Cisco
Black No. 2 West
I would suggest "minor production included with adjacent mines"

Mine N-130
Pre AEC production was called Syracuse
1954 – 1958 called RF&R
1964 – 1966 called Sam Harvey's mine (only 259 tons)

FINAL REVIEW

Page 83 2nd Paragraph, 8th Line
Delete 1970
Uranium prices peaked in 1979 at more than \$40 per pound (in concentrate) and dropped sharply afterwards. Ore production peaked in 1980 and also dropped (see chart).

Page 3-6 2nd Paragraph, 4th Line
Big Boquillas Ranch not Bid

Page 3-24 Figure 21
It appears there is a Shinarump channel at the Bluewater mine. Not correct since this mine is in the Navajo Sandstone.

WLC
7-6-07

URANIUM ORE PRODUCTION BY AREA 1947 THROUGH 1984

